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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/798,201	03/10/2004	Andrew McPherson Downie	85170-4599	6184

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WASHINGTON, DC 20005-3502

EXAMINER

GAY, JENNIFER HAWKINS

ART UNIT	PAPER NUMBER
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3672

DATE MAILED: 01/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/798,201

Applicant(s)

DOWNIE ET AL.

Examiner

Jennifer H Gay

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-10, 12-19, 23-26, 29 and 30 is/are rejected.
- 7) ☒ Claim(s) 11, 20-22, 27 and 28 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 March 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>3/10/04</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Drawings

1. Figure 1C should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.121(d)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: 200 and 300. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 112 and 122. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to

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obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

4. The abstract of the disclosure is objected to because the abstract includes the implied phrase "The invention relates to...". Correction is required. See MPEP § 608.01(b).
5. Applicant is reminded of the proper language and format for an abstract of the disclosure. The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

6. The disclosure is objected to because of the following informalities: the Cross-Referenced Application data should be updated to indicate that Application No. 10/619,402 has been abandon.

Appropriate correction is required.

Claim Objections

7. Claims 1 and 2 are objected to because they are identical claims except for a few inconsequential word changes that have no bearing on the scope of the claim. It is suggested that one of the claims be canceled. Appropriate correction is required.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by McGarian et al. (US 6,279,962).

Regarding claims 1 and 2: McGarian et al. discloses a downhole tool for use with a downhole tool assembly. The tool includes the following features:

- A first body 2 and a second body 4 mounted for relative rotation.
- A joint part 3 for use in forming a selectively releasable joint between the second body and a part of the assembly that is couplable to the second body.
- A locking means 23 for locking the first and second bodies relative to one another against relative rotation so to allow a release force to be applied through the first body to release the releasable joint and allow the tool to be separated from the part of the assembly.

Regarding claim 3: The release force is less than the force applied to make the joint up (1:18-27).

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 4-10, 12-19, 23-26, 29, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over McGarian et al. (US 6,279,962) in view of Righi et al. (US 4,728,124).

Regarding claim 4: McGarian et al. discloses all of the limitations of the above claims except for the downhole tool being a drill motor for driving a drill bit.

Righi et al. discloses an assembly similar to that of McGarian et al. Righi et al. further teaches using a releasable joint to connect a drill motor **25** to a drill bit **26**.

It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have used the tool and assembly of McGarian et al. in conjunction with a drill motor and drill bit as taught by Righi et al. in order to have provided a means for removing the drilling motor when the drill bit becomes stuck in the wellbore and to have been able to use different types motors downhole (3:30-60).

Regarding claim 5: McGarian et al. discloses a downhole tool for use with a downhole tool assembly. The tool includes the following features:

- A selectively releasable joint part **3** between a first body **2** and a second body **4**.
- A locking means **23** for locking the first and second bodies relative to one another against relative rotation so to allow a release force to be applied through the first body to release the releasable joint and allow the tool to be separated from the part of the assembly.

McGarian et al. discloses all of the limitations of the above claims except for the first body being a drill motor body and the second body being a drive shaft of the motor.

Righi et al. discloses an assembly similar to that of McGarian et al. Righi et al. further teaches using a releasable joint to connect a drill motor drive shaft **25** to a drill bit **26** via the motor body **1**.

It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have used the tool and assembly of McGarian et al. in conjunction with a drill motor and drill bit as taught by Righi et al. in order to have provided a means for removing the drilling motor when the drill bit becomes stuck in the wellbore and to have been able to use different types motors downhole (3:30-60).

Regarding claims 6, 17, 29: The release force is less than the force applied to make the joint up (1:18-27).

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Regarding claims 7, 8, 30: Though neither McGarian et al. nor Righi et al. discloses how much less torque is required to release the joint then is to make it up, It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have formed the joint of McGarian et al. in view of Righi et al. so that the release torque was lower than 70%, specifically 30-50%, of the torque required to make up the joint, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Regarding claims 9, 26: The joint of Righi et al. is located between the motor shaft and the drill bit so that the drilling assembly may be separated from the drill bit at a location between the bit and the motor shaft.

Regarding claim 10: The joint of both Righi et al. includes a threaded pin and box.

Regarding claim 12-18: McGarian et al. discloses that both the first and second bodies have threaded female boxes, that are substantially cylindrical, and mate with threaded male pins, that are substantially cylindrical, of the releasable joint. Righi et al. discloses the motor shaft having a threaded female box, that is substantially cylindrical, and a drill bit with a threaded male pin, that is substantially cylindrical, both of which mate with a respective threaded male pin and threaded female box of the releasable joint.

Neither McGarian et al. nor Righi et al. disclose the motor shaft having a male pin and the drill bit having a female box, however, it would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have formed the assemblies of McGarian et al. and Righi et al. with the appropriate box/pin relationship as a box to a pin would have unthreaded the same as a pin to a box and designing the assembly with either relationship would have been within the ability of one of ordinary skill in the art since applicant has not disclosed that particular relationship claims solves any stated problem or is for any particular purpose and it appears that the invention would equally well with any box/pin relationship.

Regarding claim 19: The joint of Righi et al. includes locking members 23 that engage the motor shaft to prevent rotation relative to the remainder of the assembly.

Regarding claims 23, 24: The drill motor of Righi et al. can be either a fluid driven turbine or a positive displacement motor.

Regarding claim 25: McGarian et al. discloses a method for selectively releasing a downhole tool from a downhole tool assembly. The method involves the following steps:

- Providing a selectively releasable joint 3 between a first body 2 and a second body 4 and a locking means 23 for locking the first and second bodies relative to one another against relative rotation so to allow a release force to be applied through the first body to release the releasable joint and allow the tool to be separated from the part of the assembly.
- Activating the locking means to lock the first body relative to the second body.
- Applying a rotational release force to the joint to release the joint and separate the first and second bodies.
- Recovering the first body from the wellbore.

McGarian et al. discloses all of the limitations of the above claims except for the first body being a drill motor body and the second body being a drive shaft of the motor.

Righi et al. discloses an assembly similar to that of McGarian et al. Righi et al. further teaches using a releasable joint to connect a drill motor drive shaft 25 to a drill bit 26 via the motor body 1.

It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have used the tool and assembly of McGarian et al. in conjunction with a drill motor and drill bit as taught by Righi et al. in order to have provided a means for removing the drilling motor when the drill bit becomes stuck in the wellbore and to have been able to use different types motors downhole (3:30-60).

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Allowable Subject Matter

12. Claims 11, 20-22, 27, and 28 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

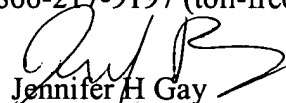
13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.


The remaining references made of record disclose various downhole releasable connectors.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer H Gay whose telephone number is (703) 308-2881. The examiner can normally be reached on Monday-Thursday, 6:30-4:00 and Friday, 6:30-1:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bagnell can be reached on (703) 308-2151. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Jennifer H Gay
Patent Examiner
Art Unit 3672

JHG 
January 14, 2005